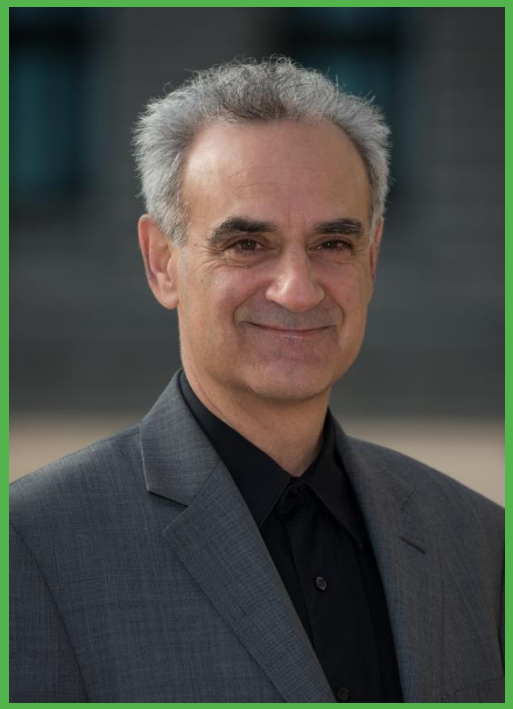
Presenter



Gary Cohen
President and Co-Founder
Health Care Without Harm
Practice Greenhealth

#ClimateChangesHealth
apha.org/climate

APHA
AMERICAN PUBLIC HEALTH ASSOCIATION
For science. For action. For health.

Health Care in the Age of Planetary Health

Gary Cohen

President, Health Care Without Harm and Practice Greenhealth

gary.cohen@hcwh.org

Climate change is the greatest public health threat of the 21st century

LANCET commission ON health & climate 15

Air Quality

Air pollution from burning fossil fuels kills seven million people annually, twice as many people as AIDs, tuberculosis and malaria combined (WHO)

Estimated health effects from U.S. coal-fired power plant emissions

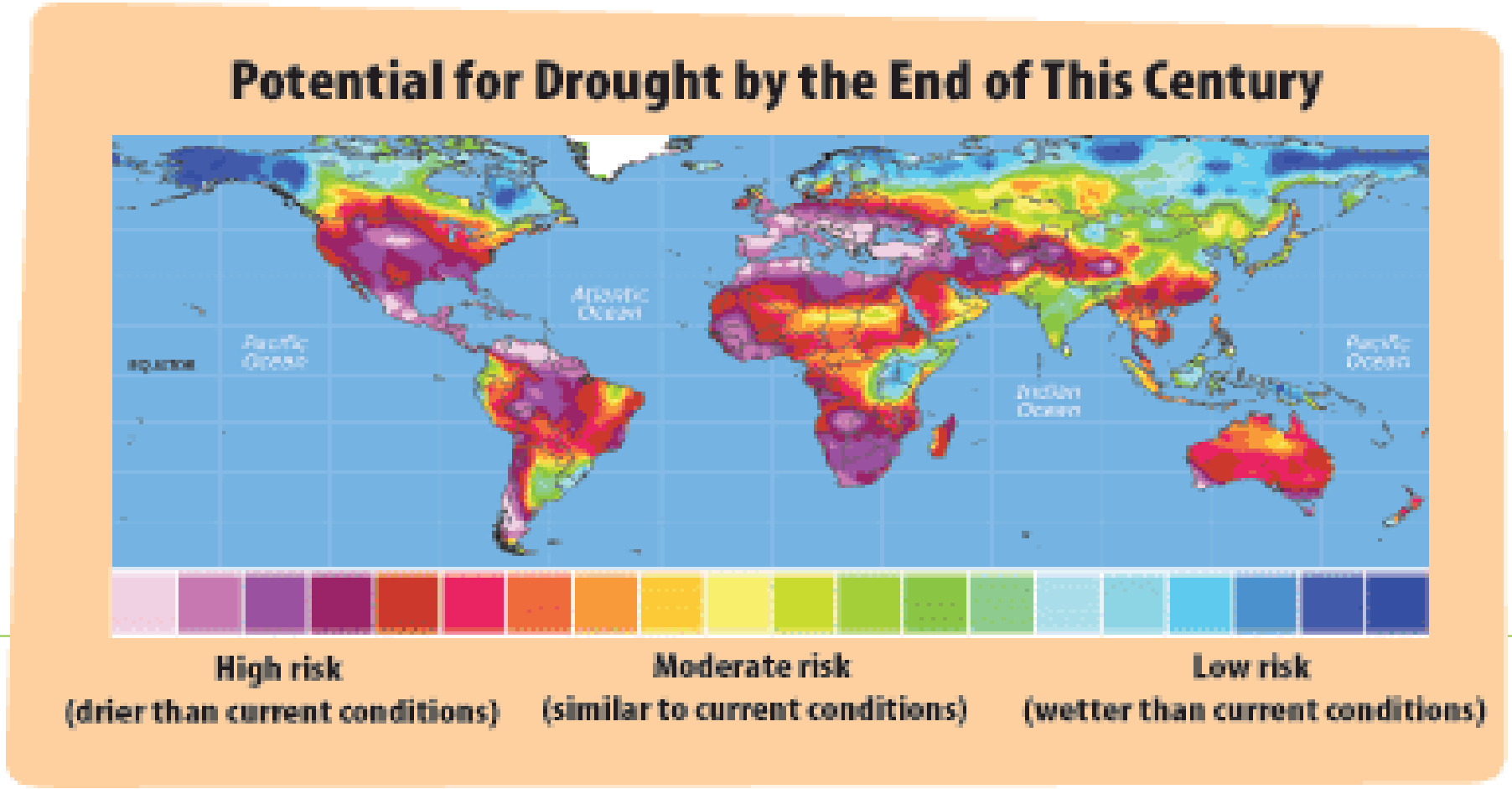
A 2010 study by the Clean Air Task Force estimated that in the US on an annual basis, air pollution from coal-fired power plants accounts for more than:

- **13,000 premature deaths**
- **20,000 heart attacks**
- **1.6 million lost workdays**
- **The total monetary cost of these health impacts is over $100 billion annually.**

Source: Schneider, C., and Jonathan Banks. 2010. *The Toll From Coal: An Updated Assessment of Death and Disease from America's Dirtiest Energy Source*. Clean Air Task Force, September.

Drought

Increasing incidence of droughts are already impacting millions of people, destroying crops and forcing migration. This will dramatically increase by 2100



Food Security and Nutrition

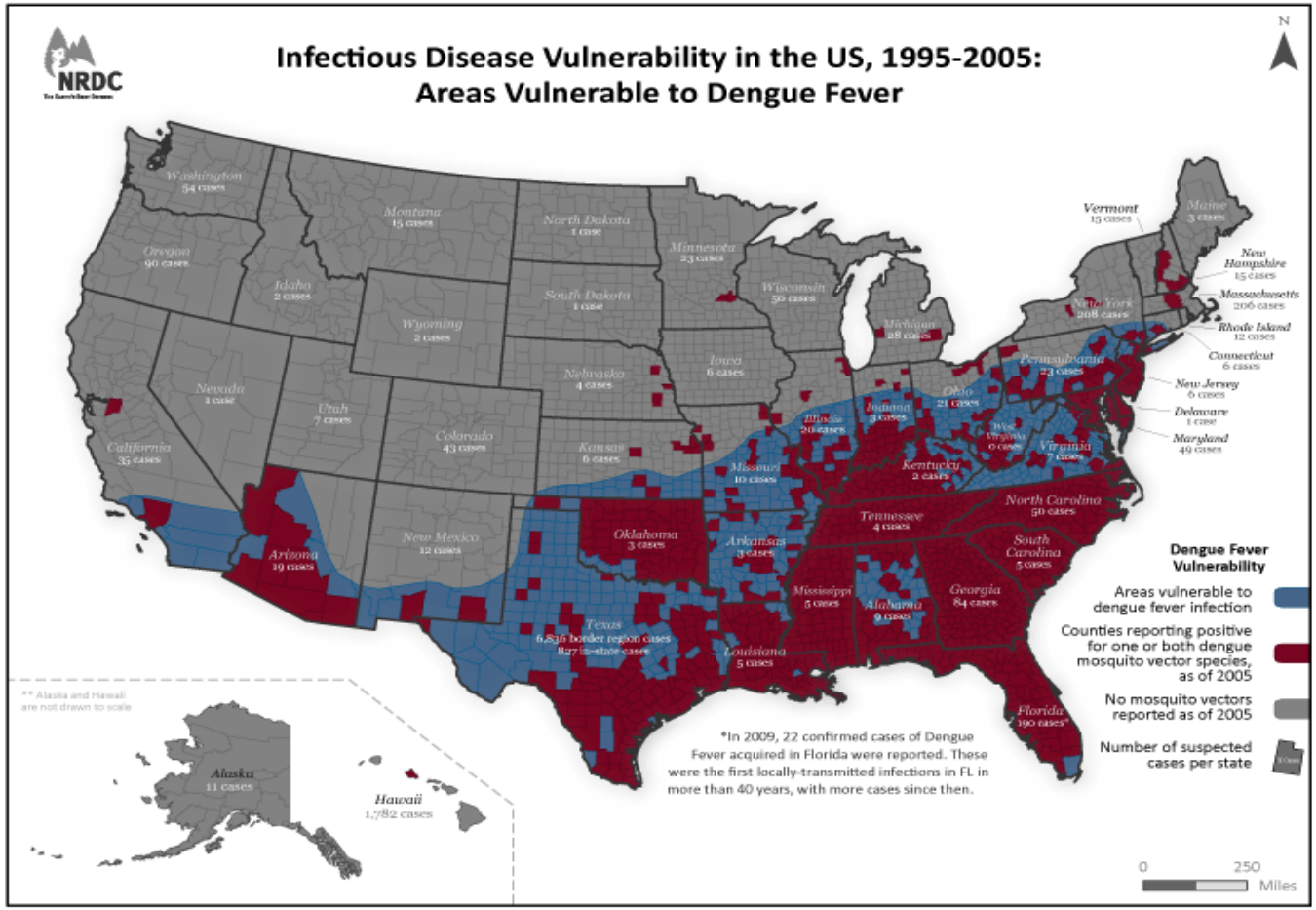
- 48 million are already food insecure in America, yet 40% of the food produced is wasted
- Two thirds of Americans are either obese or overweight
- Obesity and diabetes account for over $240 billion in health care costs annually
- Higher temperatures will increase likelihood of food contamination and reduce quality of food

Rainfall, Storms, Floods, and Sea Level Rise

Sea level rise and river flooding will inundate cities, threaten health care infrastructure, contaminate drinking water, and make people homeless
US government allocated $48 million to relocate the community of Isle de Jean Charles, the first official American climate refugees

Infectious Disease

Warming temperatures allows mosquitoes to bring malaria, dengue fever, Zika virus, and West Nile virus to new regions



Climate Change and Mental Health

- Contributes to trauma, PTSD, anxiety, depression
- First responders, women, children and low income people most vulnerable

The Weather Channel

Climate Refugees

Estimates are between 25 million and 200 million environmental refugees by 2050 (International Organization on Migration)

Climate Change and Equity

Climate change is a threat multiplier: children, poor people, the elderly and communities of color will be impacted the most.

healthy energy initiative

Paying with Our Health

Global fossil fuels subsidies: $5.3 trillion

= 6.5% of global GDP

> Health spending of all the world's governments

More than half of these subsidies are externalities:

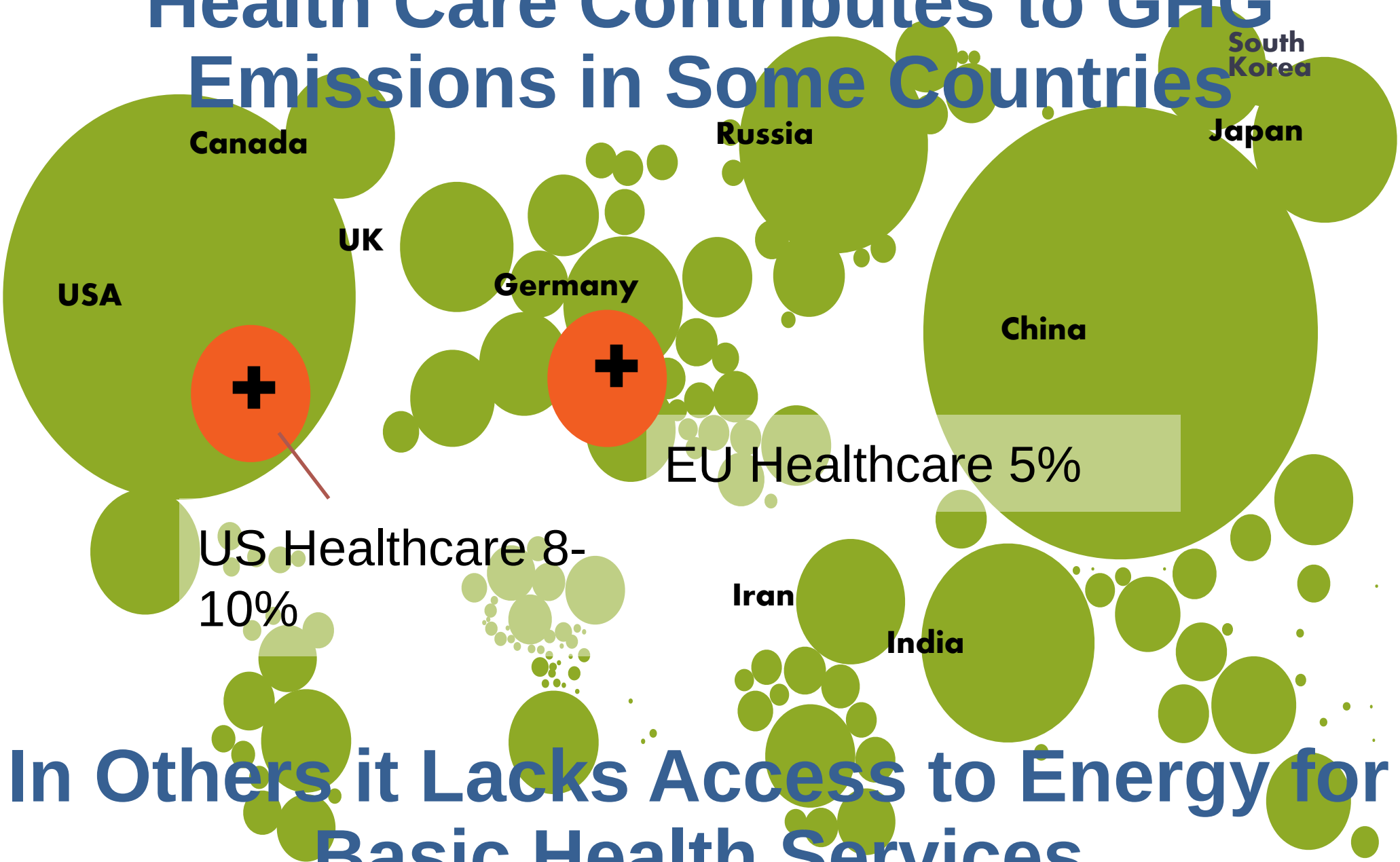
- Health care costs for treating victims of air pollution
- Lost income from ill health and premature deaths

Ending these subsidies would:

- Prevent 1.6 million premature deaths/yr
- Significantly reduce health care costs
- Reduce CO_2 emissions by 20%

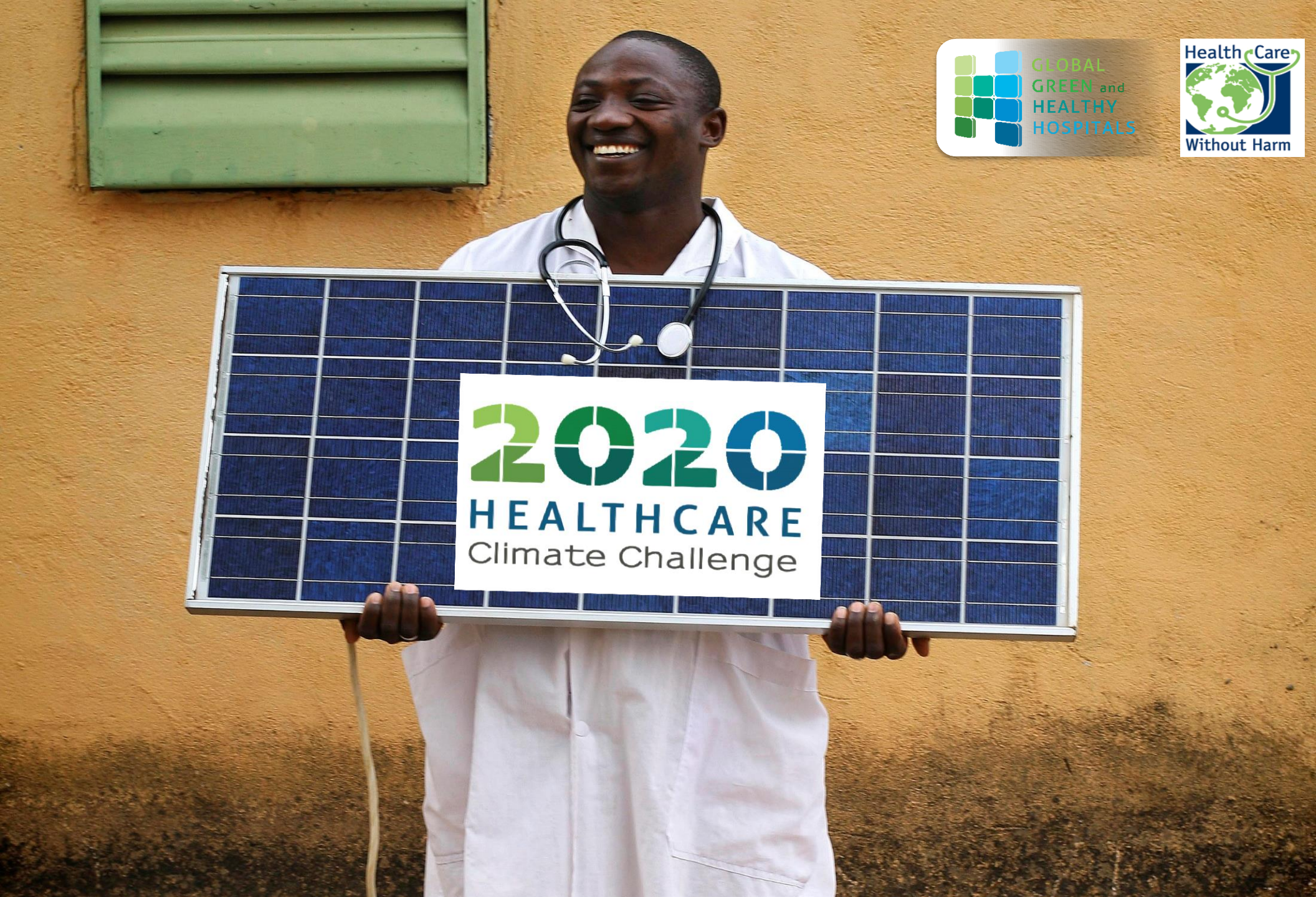
Source: International Monetary Fund 2015

Health Care Contributes to GHG Emissions in Some Countries



In Others it Lacks Access to Energy for Basic Health Services

Data Source: US Energy Information Agency, 2012


GLOBAL
GREEN and
HEALTHY
HOSPITALS
Health Care
Without Harm
2020
HEALTHCARE
Climate Challenge

Low Carbon Health Care
Investing in Community Resilience

Gundersen Health, USA

83% emissions cut since 2008.

Energy independence in 2014

- 60% Clean Renewable

- 40% Energy reduction
  - Saves US $2-million per year
- Renewable energy
  - Solar power
  - Geothermal energy
  - Wind Turbines
  - Dairy digesters
  - Combined heat and power
  - Biomass boiler

Photo: Gundersen Health

Kaiser Permanente's 2025 Environmental Stewardship Goals:

Raising the Bar on Environmental Responsibility

2020 HEALTHCARE Climate Challenge

CLIMATE ACTION

Become "carbon net positive" by buying enough clean energy and carbon offsets to remove more greenhouse gases from the atmosphere than we emit.

SUSTAINABLE FOOD

Buy all of our food locally or from farms and producers that use sustainable practices, including using antibiotics responsibly.

WASTE REDUCTION

Recycle, reuse or compost 100% of our non-hazardous waste.

WATER CONSERVATION

Reduce the amount of water we use by 25% per square foot of buildings.

SAFER PRODUCTS

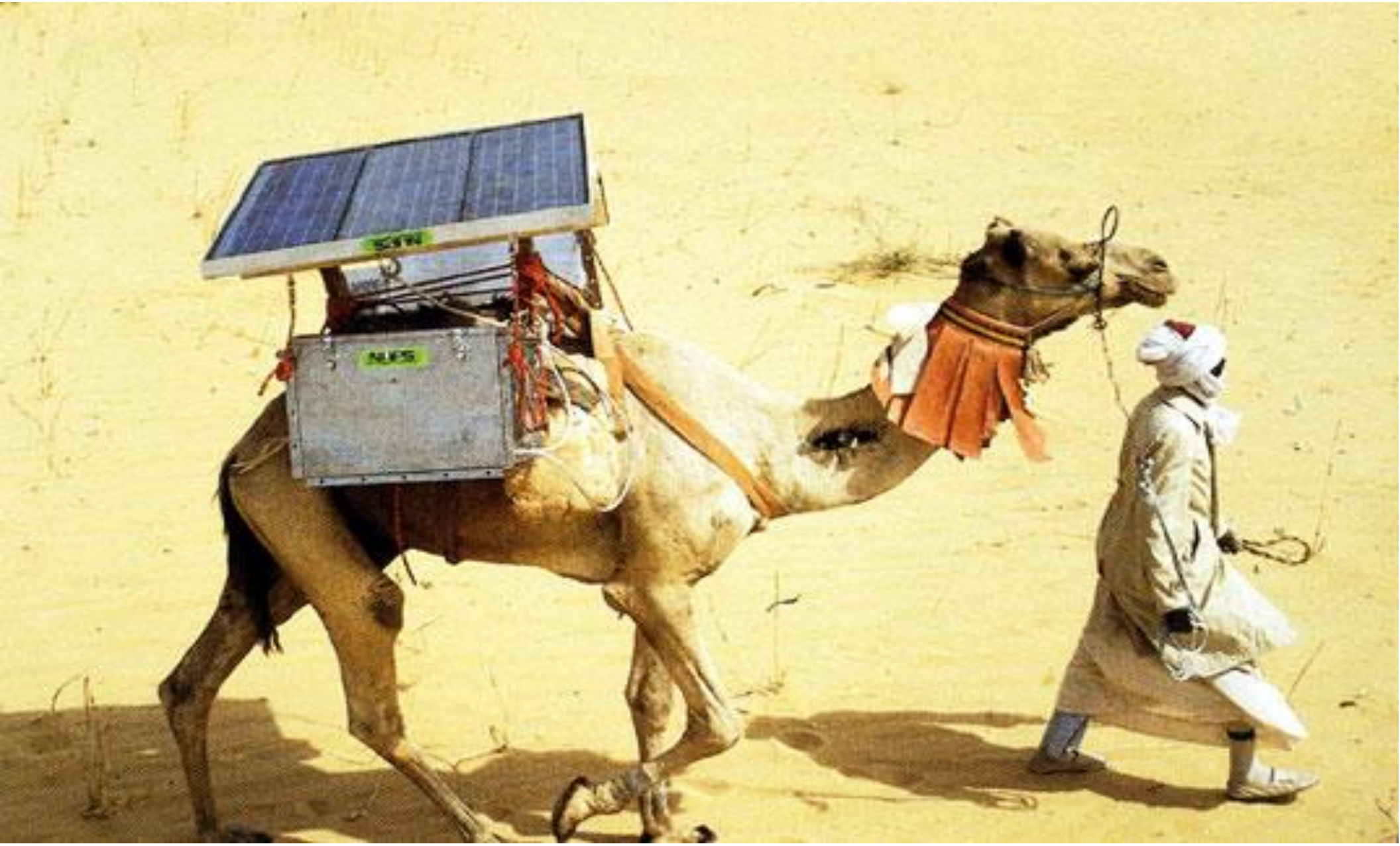
Increase our purchase of products and materials meeting environmental standards to 50%.

SUSTAINING SUSTAINABILITY

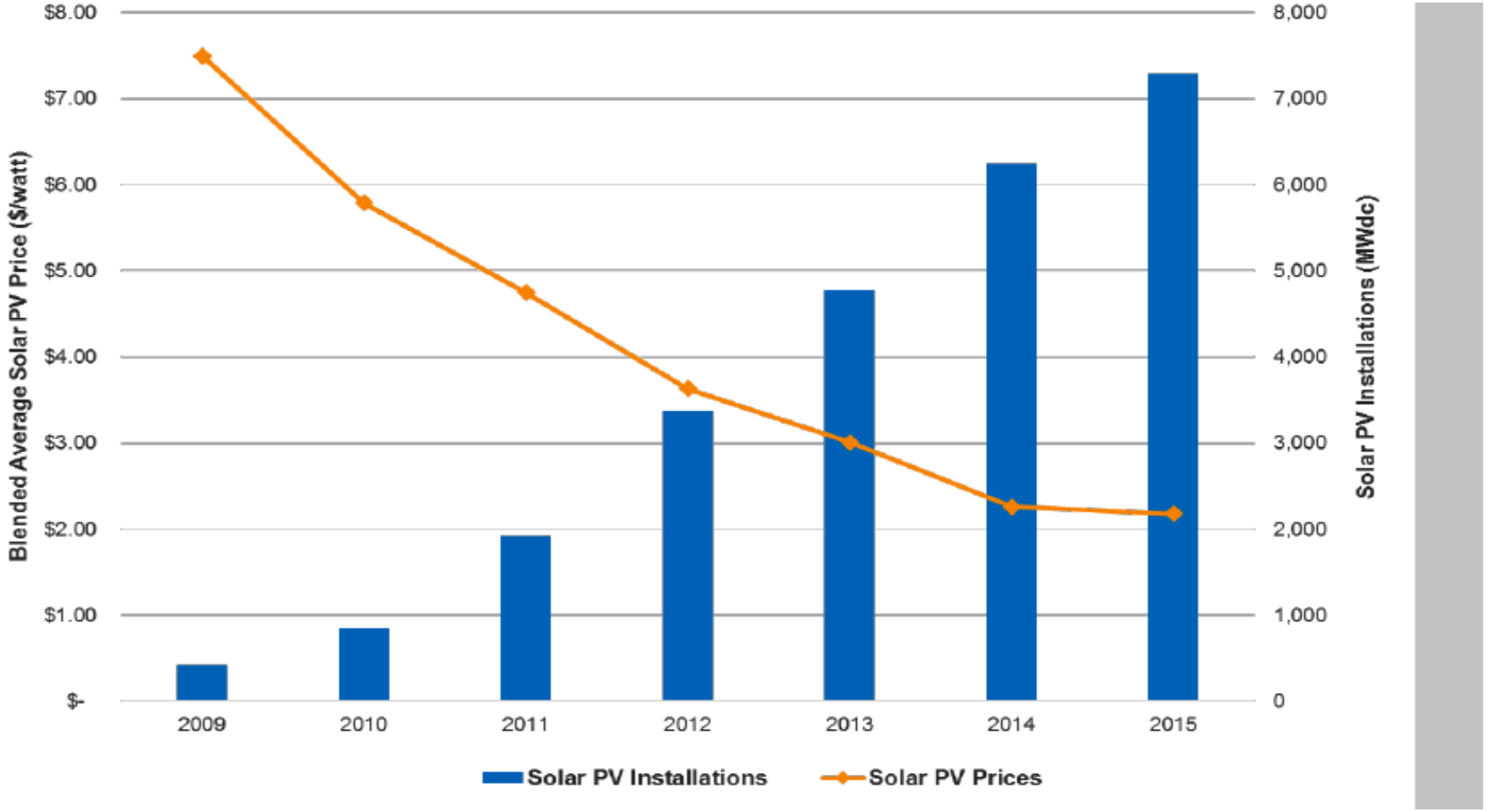
Meet international standards for environmental management at all of our hospitals.

COLLABORATION

Pursue new collaborations to reduce environmental risks to foodsheds, watersheds and air basins supplying our communities.



As Solar Industry Scales, Prices Fall



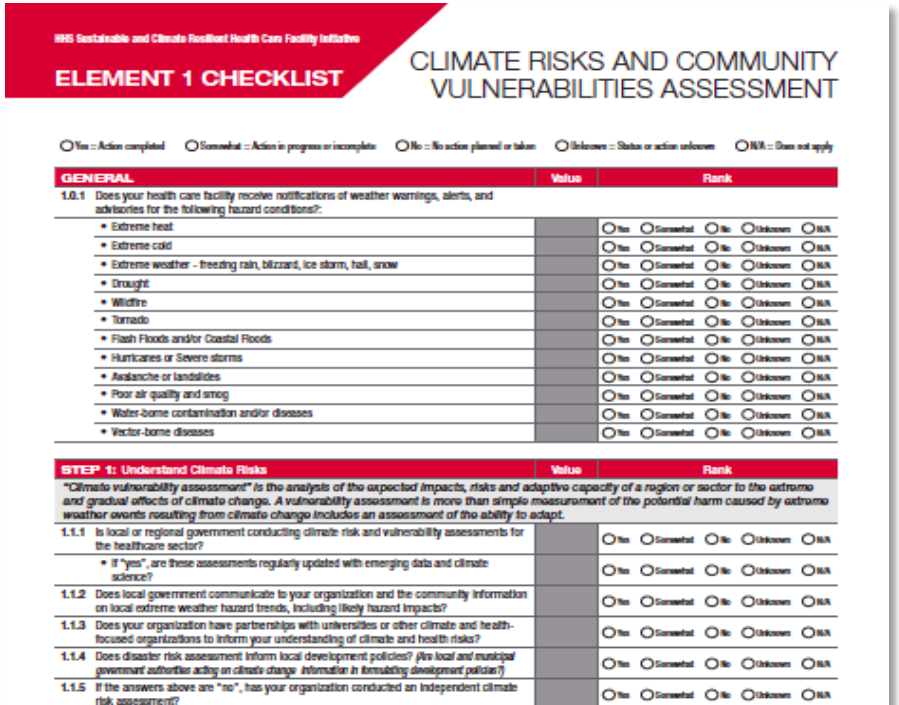
Source: SEIA

Low Carbon Health Care: Sustainable Purchasing

* accelerate the adoption and use of safer, greener products by leading healthcare systems,
* catalyze innovation in next generation product development, and
* inspire similar action in other sectors.

Low Carbon Health Care - Resilience

U.S. National Institute for Environmental Health Sciences report co-authored by Health Care Without Harm.



HHS Sustainable and Climate Resilient Health Care Facility Initiative

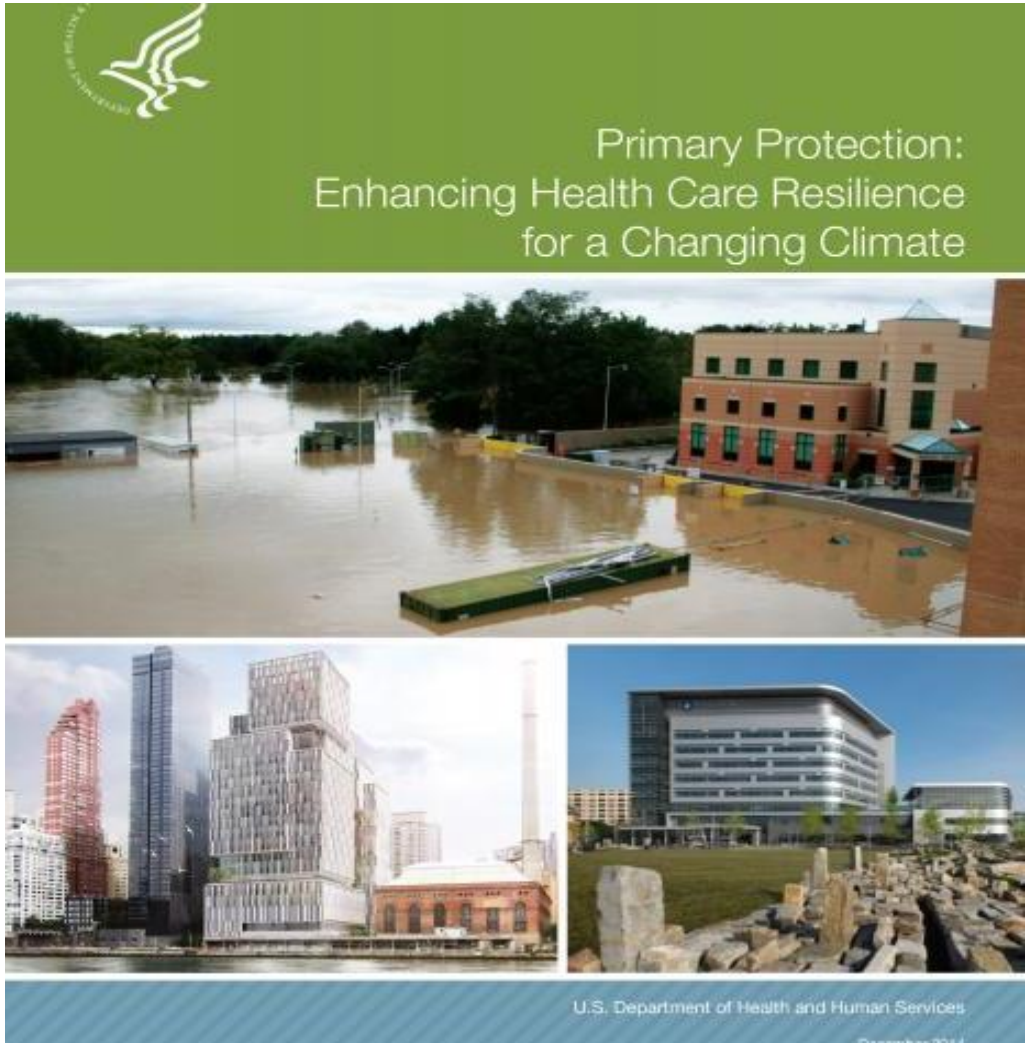
ELEMENT 1 CHECKLIST

CLIMATE RISKS AND COMMUNITY VULNERABILITIES ASSESSMENT

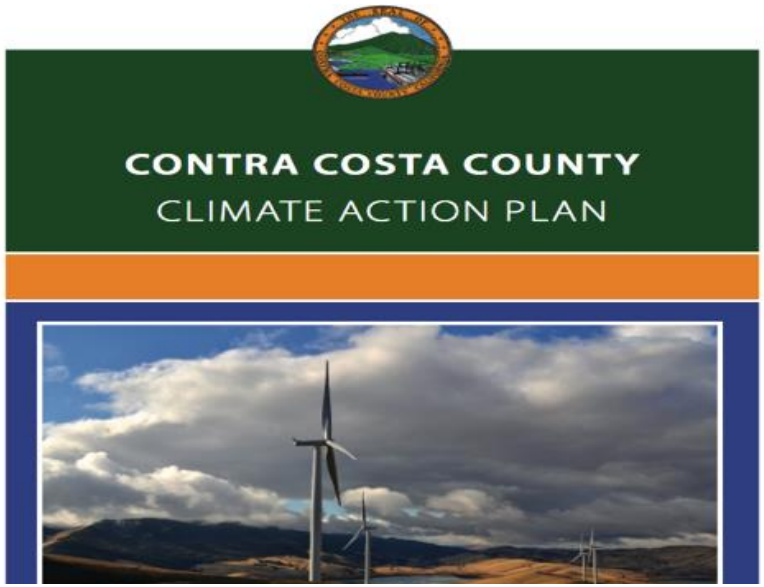
○Yes :: Action completed ○Somewhat :: Action in progress or incomplete ○No :: No action planned or taken ○Unknown :: Status or action unknown ○N/A :: Does not apply

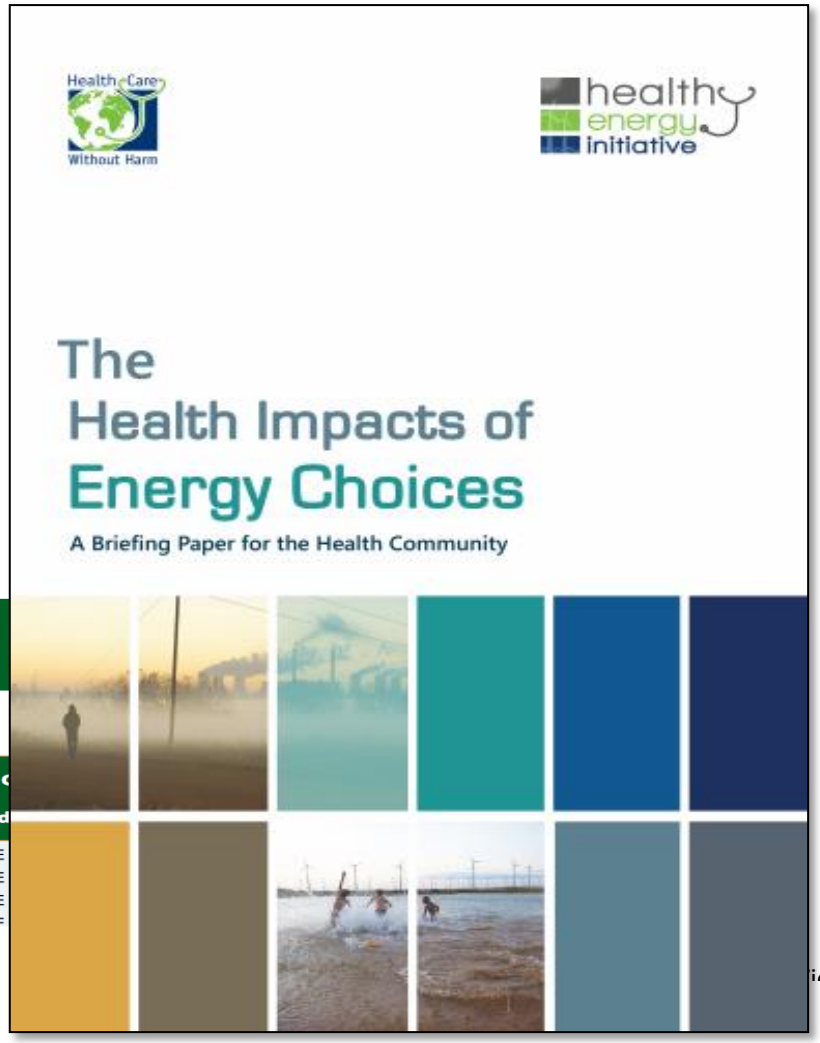
GENERAL	Value	Rank
1.0.1 Does your health care facility receive notifications of weather warnings, alerts, and advisories for the following hazard conditions?:		
• Extreme heat		○Yes ○Somewhat ○No ○Unknown ○N/A
• Extreme cold		○Yes ○Somewhat ○No ○Unknown ○N/A
• Extreme weather - freezing rain, blizzard, ice storm, hail, snow		○Yes ○Somewhat ○No ○Unknown ○N/A
• Drought		○Yes ○Somewhat ○No ○Unknown ○N/A
• Wildfire		○Yes ○Somewhat ○No ○Unknown ○N/A
• Tornado		○Yes ○Somewhat ○No ○Unknown ○N/A
• Flash Floods and/or Coastal Floods		○Yes ○Somewhat ○No ○Unknown ○N/A
• Hurricanes or Severe storms		○Yes ○Somewhat ○No ○Unknown ○N/A
• Avalanche or landslides		○Yes ○Somewhat ○No ○Unknown ○N/A
• Poor air quality and smog		○Yes ○Somewhat ○No ○Unknown ○N/A
• Water-borne contamination and/or diseases		○Yes ○Somewhat ○No ○Unknown ○N/A
• Vector-borne diseases		○Yes ○Somewhat ○No ○Unknown ○N/A

STEP 1: Understand Climate Risks	Value	Rank
"Climate vulnerability assessment" is the analysis of the expected impacts, risks and adaptive capacity of a region or sector to the extreme and gradual effects of climate change. A vulnerability assessment is more than simple measurement of the potential harm caused by extreme weather events resulting from climate change includes an assessment of the ability to adapt.		
1.1.1 Is local or regional government conducting climate risk and vulnerability assessments for the healthcare sector?		○Yes ○Somewhat ○No ○Unknown ○N/A
• If "yes", are these assessments regularly updated with emerging data and climate science?		○Yes ○Somewhat ○No ○Unknown ○N/A
1.1.2 Does local government communicate to your organization and the community information on local extreme weather hazard trends, including likely hazard impacts?		○Yes ○Somewhat ○No ○Unknown ○N/A
1.1.3 Does your organization have partnerships with universities or other climate and health-focused organizations to inform your understanding of climate and health risks?		○Yes ○Somewhat ○No ○Unknown ○N/A
1.1.4 Does disaster risk assessment inform local development policies? *(Are local and municipal government authorities acting on climate change information in formulating development policies?)*		○Yes ○Somewhat ○No ○Unknown ○N/A
1.1.5 If the answers above are "no", has your organization conducted an independent climate risk assessment?		○Yes ○Somewhat ○No ○Unknown ○N/A



Incorporating Health into Energy Policy





Health Co-Benefit Evaluation

Table A.1. Summary of Measures by Health Criteria

Health Indicator	Healthy Food	Physical Activity, Walkability, Bikeability	Outdoor Air Quality	Indoor Air Quality	Improved Access	Green Space	Job Creation	Ac
Reduction Measures	LUT 5.1 LUT 5.2 LUT 5.3 LUT 5.4	EE 4.1 EE 4.5 LUT 1.1 LUT 1.2	ALL	EE 1.1 EE 1.2 EE 1.3 EE 1.4	LUT 1.1 LUT 1.4 LUT 1.5 LUT 1.6	EE 4.1 EE 4.5 LUT 5.1 LUT 5.2	EE 5.3	EE EE EE EE

http://cchealth.org/health-data/pdf/2015-climate-change.pdf

Business | Nation & World

Oakland votes to ban coal shipments, citing health risks

Originally published June 28, 2016 at 1:57 am | *Updated June 28, 2016 at 1:59 am*

All Are Welcome Here
All Are Safe Here

Leveraging Health Sector Voices

JOURNAL OF THE CATHOLIC HEALTH ASSOCIATION OF THE UNITED STATES

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May-June 2016 | Volume 97, Number 3

A Call to Climate Leadership

By SR. MARY ELLEN LECIEJEWSKI, OP, MA, SR. SUSAN VICKERS, RSM and RACHELLE REYES WENGER, MPA

NRDC

OUR WORK OUR EXPERTS OUR STORIES GET INVOLVED ABOUT US

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Lloyd Dean

February 25, 2016

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The leader in healthcare business news, research & data

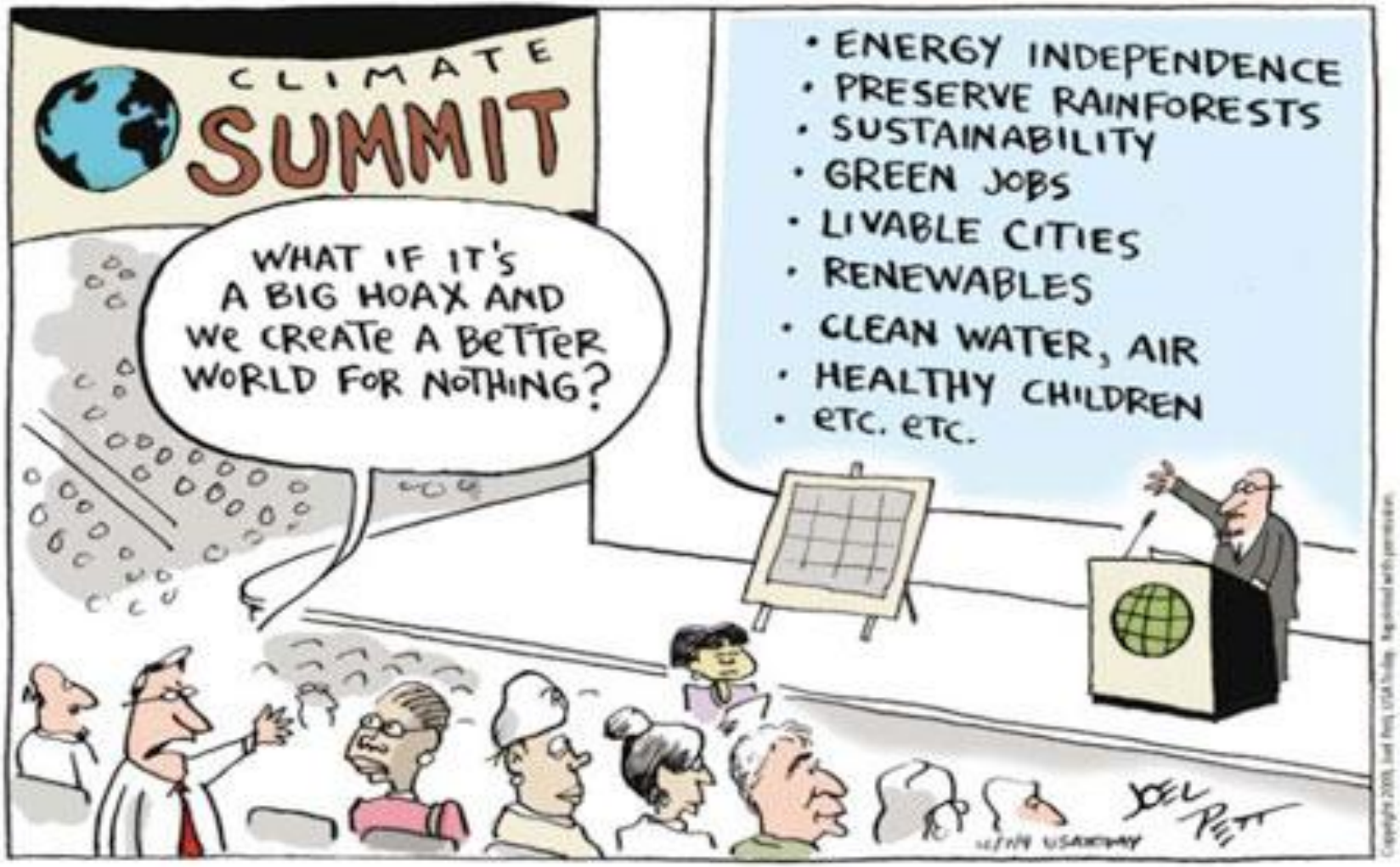
Healthcare confronts climate change: Schools, providers focus on health effects to dampen political opposition

By Andis Robeznieks | June 13, 2015

Climate Change: the Greatest Health Opportunity of the 21st Century– *The Lancet 2015*

Transitioning away from fossil fuels to a low carbon economy

- Reduces greenhouse gas emissions
- Reduces health impacts from fossil fuels/toxic chemicals
- Lowers health care costs


CLIMATE
SUMMIT
WHAT IF IT'S A BIG HOAX AND WE CREATE A BETTER WORLD FOR NOTHING?
• ENERGY INDEPENDENCE
• PRESERVE RAINFORESTS
• SUSTAINABILITY
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• ETC. ETC.
JOEL PETT